



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

X.237

Amendment 1
(10/96)

SERIES X: DATA NETWORKS AND OPEN SYSTEM
COMMUNICATION

Open System Interconnection – Connectionless-mode
protocol specifications

Information technology – Open Systems
Interconnection – Connectionless protocol for the
association control service element: Protocol
specification

**Amendment 1: Incorporation of extensibility
markers and authentication parameters**

ITU-T Recommendation X.237 – Amendment 1

(Previously CCITT Recommendation)

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FOREWORD

ITU (International Telecommunication Union) is the United Nations Specialized Agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the ITU. Some 179 member countries, 84 telecom operating entities, 145 scientific and industrial organizations and 38 international organizations participate in ITU-T which is the body which sets world telecommunications standards (Recommendations).

The approval of Recommendations by the Members of ITU-T is covered by the procedure laid down in WTSC Resolution No. 1 (Helsinki, 1993). In addition, the World Telecommunication Standardization Conference (WTSC), which meets every four years, approves Recommendations submitted to it and establishes the study programme for the following period.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC. The text of ITU-T Recommendation X.237, Amendment 1, was approved on 5th of October 1996. The identical text is also published as ISO/IEC International Standard 10035-1.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized private operating agency.

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Summary

This amendment to the connectionless ACSE protocol specification includes the ASN.1 extensibility marker in the module describing the protocol. It also enhances the connectionless ACSE protocol specification to provide support for conveyance of authentication parameters in the A-UNIT-DATA APDU.

INTERNATIONAL STANDARD

ITU-T RECOMMENDATION

**INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION –
CONNECTIONLESS PROTOCOL FOR THE ASSOCIATION CONTROL
SERVICE ELEMENT: PROTOCOL SPECIFICATION**

AMENDMENT 1

Incorporation of extensibility markers and authentication parameters

1) Subclause 7.1.4

Add the following to the end of Table 1 – AUDT APDU Fields

Authentication mechanism name	U	req	ind
Authentication value	U	req	ind

2) Subclauses 7.1.4.13 and 7.1.4.14

Add the following two new clauses, immediately after 7.1.4.12.

7.1.4.13 Authentication mechanism name

For the sending ACPM: This value is determined by the value of the Authentication Mechanism Name parameter of the A-UNIT-DATA request primitive.

For the receiving ACPM: This value is used to determine the value of the Authentication Mechanism Name parameter of the A-UNIT-DATA indication primitive, if issued.

7.1.4.14 Authentication Value

For the sending ACPM: This value is determined by the value of the Authentication Value parameter of the A-UNIT-DATA request primitive.

For the receiving ACPM: This value is used to determine the value of the Authentication Value parameter of the A-UNIT-DATA indication primitive, if issued.

NOTE – There is no need for an “ACSE requirements” field in the connectionless protocol. The use of the authentication functional unit by the sending ACPM is implicit in the presence of the mechanism-name or calling-authentication-value fields.

3) Subclause 7.2

Add the following new item c) and replace the full stop at the end of item b) with a semi-colon.

- c) if the authentication functional unit is not supported, ignore any mechanism-name or calling-authentication-value field.

4) Subclause 9.1

Replace the ASN.1 module with the following:

Connectionless-ACSE-1{joint-iso-itu-t association-control(2) module(2) clacse1(2) version(1) }

DEFINITIONS::=

BEGIN

-- Connectionless-ACSE-1 refers to ITU-T Rec. X.237 | ISO/IEC 10035-1

IMPORTS

AP-title, AE-qualifier, AE-title, Authentication-value, Mechanism-name, ObjectSet
FROM ACSE-1

{joint-iso-itu-t association-control(2) module(2) acse1(1) version(1) }

-- The data types AP-title and AE-qualifier are imported from ITU-T Rec. X.227 | ISO/IEC 8650-1

```

AUDT-apdu ::= [APPLICATION 0]      IMPLICIT SEQUENCE
{ protocol-version                [0]      IMPLICIT BIT STRING
                                     {version1 (0)} DEFAULT {version1},
application-context-name          [1]      Application-context-name,
called-AP-title                    [2]      AP-title                      OPTIONAL,
called-AE-qualifier                [3]      AE-qualifier                  OPTIONAL,
called-AP-invocation-id            [4]      AP-invocation-id              OPTIONAL,
called-AE-invocation-id            [5]      AE-invocation-id              OPTIONAL,
calling-AP-title                   [6]      AP-title                      OPTIONAL,
calling-AE-qualifier               [7]      AE-qualifier                  OPTIONAL,
calling-AP-invocation-id           [8]      AP-invocation-id              OPTIONAL,
calling-AE-invocation-id           [9]      AE-invocation-id              OPTIONAL,
-- the following field shall only be present if the Authentication functional unit is selected
mechanism-name                     [11]     IMPLICIT Mechanism-name        OPTIONAL,
-- the following field shall only be present if the Authentication functional unit is selected
calling-authentication-value        EXPLICIT Authentication-value         OPTIONAL,
implementation-information          [29]     IMPLICIT Graphic String        OPTIONAL,
...
...
user-information                   [30]     IMPLICIT SEQUENCE SIZE (1, ..., 0,2..MAX)
                                     OF EXTERNAL
}

```

Application-context-name ::= OBJECT IDENTIFIER

-- As defined in CCITT Rec. X.650 | ISO 7498-3, an application-entity title is composed of an
 -- application-process title and an application-entity qualifier. The ACSE protocol provides for the
 -- transfer of an application-entity title value by the transfer of its component values.

AE-invocation-id ::= INTEGER

AE-invocation-id ::= INTEGER

END

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